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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/316,899 | 05/22/1999 | DARKO KIROVSKI | MS1-356US | 8452 |

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EXAMINER

MEISLAHN, DOUGLAS J

ART UNIT PAPER NUMBER

2132

DATE MAILED: 08/26/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/316,899 | KIROVSKI ET AL. | |
| | Examiner | Art Unit | |
| | Douglas J. Meislahn | 2132 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,5-11,27-32,35,36 and 43 is/are allowed.
- 6) ☒ Claim(s) 1,4,12-23,25,26,33,34,37-39 and 42 is/are rejected.
- 7) ☒ Claim(s) 24,40 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This action is in response to the amendment filed 12 June 2002 that amended claims 1-3, 5, 11, 12, 15, 22, 24, 26, 32-34, 36, and 41. This amendment also added claim 43.

Claim Objections

2. Claim 37 is objected to because of the following informalities: "of" in the fourth line of the claim should be deleted. Appropriate correction is required.

Response to Arguments

3. Applicant's arguments filed 12 June 2002 have been fully considered but they are not persuasive. Applicant has cited 37 C.F.R. 1.104(d)(2) as requiring the examiner to provide references in support of official notices taken. This rule is applicable to facts within the personal knowledge of the employee, not that known to those of ordinary skill in the art. Thus, the request for references is unpersuasive.

4. With respect to Mintzer et al., applicant argues that either strong or weak watermarks are not selectively chosen for insertion. The examiner disagrees because insertion of the watermarks in Mintzer et al. would be done selectively in that the decision to insert a watermark, either strong or weak, requires a logic process that mandates selection. The order of watermarking also mandates that one or the other is selected (strong ones first, then weak). The patentability of applicant's invention lies in the realization of the benefits of placing the watermarks in data based on audio characteristics of that data.

5. With respect to Linnartz et al., claim 12 does not mandate the inclusion of multiple watermarks. One of two must be present. In Linnartz et al., one of those is present, and hence the limitations of the claim are met. The rationale behind the synchronization circuit is explained in the rejection.

6. With respect to claims 2, 36-39, and 42, claims 2 and 36 are allowed, while the novelty of the others is not clearly demonstrated. Motivation to combine Mintzer and Levine has been discussed in the previous office action. In regard to claims 7, 18, 21, and 25, motivation to combine the references has been discussed in the previous office action.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

8. Claims 1, 4, 22, 26, 33, 34, and 37 are rejected under 35 U.S.C. 102(a) as being clearly anticipated by Mintzer et al. ("If One Watermark is Good, Are More Better?").

Applicant specifically stipulates that the claims relate to audio systems. In their abstract, Mintzer et al. mention that watermarks can be put into digital media, which anticipates audio data.

9. Claims 12-14 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Linnartz (5933798).

Linnartz's second figure shows an evaluation circuit, which reads on the second clause of claim 12. The input reads on applicant's synchronization circuit, as in all of the data might contain a watermark. Table I in column 4 shows two values, one of which indicates a match and the other of which indicates the reverse. Although Linnartz's preferred embodiment is disclosed as being an image watermarking system, it is apparent from the introduction that the teachings are applicable to audio systems.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 38-39, and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mintzer et al. in view of Levine et al. (6209094).

Mintzer et al. show data that is watermarked with both robust, or strong, and fragile, or weak, watermarks. They do not say that the placement of any of these watermarks is determined by an audible measure of the data. In lines 45-51 of column 5, Levine et al. say that robust watermarks should be encoded into audible sections of a signal. If recorded into inaudible sections, the data with the robust watermarks could be removed without significantly perceptibly changing the signal. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made

to include the robust watermarks of Mintzer et al. within audible regions of the data so as to prevent the watermarks from being stripped without degrading the audio signal.

12. Claims 17, 18, 21, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz in view of Mintzer et al. and Levine et al.

Linnartz shows a method for detecting watermarks. Element 21 anticipates a pattern generator. Element 24 of figure 3 anticipates a detector. Linnartz does not say that the pattern generator generates both a strong and a weak watermark. Mintzer et al. teach the benefits of incorporating multiple watermarks into data. The different watermarks, robust, fragile, or otherwise, all convey different types of important information. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made for Linnartz's pattern generator to generate both robust and fragile watermarks in order to check for different types of useful information as taught by Mintzer et al. The first two elements of applicant's claim perform no purpose within the claims, so their treatment is curtailed. They are obvious over Levine et al. in ways outlined in previous sections. With respect to claim 18, Linnartz has already been cited as showing correlation values.

13. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Linnartz, Mintzer et al., and Levine et al. as applied to claim 17 above.

Linnartz, Mintzer et al., and Levine et al. teach a watermark detection system. They do not say that a decompressor is included with the system. Official notice is taken that decompression units that operate on magnitude components are old and well known. These units have a bevy of uses, one of which is decompressing the levels of a

signal so that the magnitudes attain their original status. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a decompressor with the watermarking apparatus so that the data could be decompressed.

14. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mintzer et al. in view of Linnartz.

Mintzer et al. show a watermarking system using multiple watermarks. In the last full paragraph of the first column, Mintzer et al. mention that an owner of digital content might wish to place a watermark within the content. They do not explicitly say that detection means would reside with a recipient. In lines 18-24 of column 1, Linnartz intimates that detection apparatus can be separate from the source of data. This aids in tracing piracy. Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include detecting systems at clients who use the content.

15. Claims 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mintzer et al., Levine et al., and Linnartz as applied to claims 12 and 17 above.

Mintzer et al., Levine et al., and Linnartz show detecting watermarks through the generation and comparison of correlation values. They do not say that the correlation value must be exceeded by a random amount. Official notice is taken that it is old and well to add a random amount to the correlation value in order to combat piracy. Therefore it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to add a random number to the correlation value in order to combat piracy.

Allowable Subject Matter

16. Claims 2, 3, 5-11, 27-32, 35, 36, and 43 are allowed.
17. Claims 24 and 40-41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas J. Meislahn whose telephone number is (703) 305-1338. The examiner can normally be reached on between 9 AM and 6 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barrón can be reached on (703) 305-1830. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

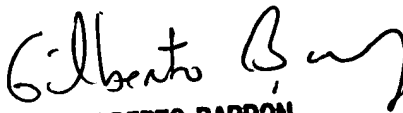
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DJM

August 23, 2002

Douglas J. Meislahn
Examiner
Art Unit 2132


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